



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,870	10/22/2003	Michael J. Wookey	30014200-1120	6814
<div>58328      7590      01/31/2008</div> <div>SUN MICROSYSTEMS C/O SONNENSCHN NATH &amp; ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080</div>				
			<div>EXAMINER</div> <div>PHAM, MICHAEL</div>	
			<div>ART UNIT</div> <div>2167</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>01/31/2008</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/690,870

Applicant(s)

WOOKEY, MICHAEL J.

Examiner

Michael D. Pham

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Status of claims*

1. Claims 1, 3, 5, 7, and 9-10 are pending.
2. Claims 1, 3, 5, 7, and 9-10 have been examined.

*Specification*

3. Claims 5 and 7 are objected to for minor informalities: Applicant does not provide antecedent basis for the claim terminology "computer readable storage medium" in the specifications.

The phrase "computer-readable storage medium" is interpreted as a storage medium not including any form of energy or signals.

*Claim Rejections - 35 USC § 101*

4. Rejections under 101 directed towards claims 5-7 are respectfully withdrawn.

*Claim Rejections - 35 USC § 112*

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1, 3, 5, 7, and 9-10 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the independent claims the limitation "modifying one of the first and second processing engines during the determining step, wherein the determining of the solution is not interrupted by the modification" is not fully supported in the specifications. In particular "during the determining step" does not appear to be disclosed.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 5, 7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0095399 by Devine et. al (hereafter Devine), and further in view of U.S. Patent Application Publication 2003/0115291 by Kendall et. al. (hereafter Kendall).

**Claim 1:**

Devine discloses the following claimed limitations:

“providing a plurality of in-memory processing engines” [0055, connected devices provide data processing. That is, plurality of processing engines.] “, each processing engine subscribing to at least one of a plurality of datatypes and capable of publishing at least one of the datatypes” [Devine, 0055, Connected devices are able to subscribe and publish information.] “, at least one of the processing engines subscribing to at least one of the datatypes published by another of the processing engines,” [0055, connected devices may act as clients with respect to services hosted by publishers. That is, a subscriber subscribes to a publisher.] “the processing engines initiating processing responsive to receipt of a subscribed to datatype” [0055, connected devices may act as clients capable of receiving and optionally modifying reports that they receive from publishers. That is, the connected device can receive as well as respond to (i.e. by modifying) the subscribed datatype received from publisher.]; and

However Devine does not explicitly disclose

“determining a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and”

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype”.

On the other hand, Kendall discloses,

“determining a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and” [abstract, a subscribing selector server receives data published by the data repository (e.g. a first processing engine subscribing to and receiving a first data type), filters the published data in accordance with filtering criteria defined on the selector server (e.g. performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype)]

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype” [0083, a first trade repository data is fed to a first selector server 24, which in turn passes data to a daisy chained second selector server 25. This in turn communicates via a wide area network 26 with a third daisy chained selector server 27 (e.g. a second processing engine subscribing to and receiving the second datatype). 0005, selector servers can filter and combine data (e.g. performing a second processing on the processed data associated with the second data type to determine the solution to the problem) to produce customized output (e.g. and publishing the solution as a third datatype)].

“modifying one of the first and second processing engines during the determining step, wherein the determining of the solution is not interrupted by the modification.” [0072, the allocation of selectors to servers is dynamic; this means that new selectors can be defined and allocated to a selector server without having to stop or restart any component. 0079, the idea that

a selector server can get its data from another selector leads to number of interesting and important consequences. This idea is known as daisy chaining. 0080, selectors to refine selections without having to requery the repository. Accordingly, modifying (new selectors can be defined and allocated/ selectors to refine selection) one of the first and second processing engines (selection servers) during the determining step (daisy chaining), wherein the determining of the solution is not interrupted by the modification (without having to stop or restart any component) is suggested.]

Devine and Kendall are both related to publish and subscribing systems. Hence are within a the same field of endeavor. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply Kendall's disclosure of subscribing to one processing engine to another to produce a result as shown above to Devine's system in order to provide fine selections without having to requery repositories [0080]. Thereby improving the cost of data retrieval.

**Claim 3:**

Devine discloses, "deploying a new processing engine, wherein the determining of the solution is not interrupted by the modification." [0057, deploying a back up workstation (i.e. new processing engine) when failure or loss of power occurs to the publisher.].

**Claim 5:**

Devine discloses the following claimed limitations:

“providing a plurality of in-memory processing engines” [0055, connected devices provide data processing. That is, plurality of processing engines.] “, each processing engine subscribing to at least one of a plurality of datatypes and capable of publishing at least one of the datatypes” [Devine, 0055, Connected devices are able to subscribe and publish information.] “, at least one of the processing engines subscribing to at least one of the datatypes published by another of the processing engines, the processing engines initiating processing responsive to receipt of a subscribed to datatype;” [0055, connected devices may act as clients capable of receiving and optionally modifying reports that they receive from publishers. That is, the connected device can receive as well as respond to (i.e. by modifying) the subscribed datatype received from publisher.].

However Devine does not explicitly disclose

“determining a solution to a problem by  
a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and”

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype”.

On the other hand, Kendall discloses,



“determining a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and” [abstract, a subscribing selector server receives data published by the data repository (e.g. a first processing engine subscribing to and receiving a first data type), filters the published data in accordance with filtering criteria defined on the selector server (e.g. performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype)]

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype” [0083, a first trade repository data is fed to a first selector server 24, which in turn passes data to a daisy chained second selector server 25. This in turn communicates via a wide area network 26 with a third daisy chained selector server 27 (e.g. a second processing engine subscribing to and receiving the second datatype). 0005, selector servers can filter and combine data (e.g. performing a second processing on the processed data associated with the second data type to determine the solution to the problem) to produce customized output (e.g. and publishing the solution as a third datatype)].

“modifying one of the first and second processing engines during the determining step, wherein the determining of the solution is not interrupted by the modification.” [0072, the allocation of selectors to servers is dynamic; this means that new selectors can be defined and allocated to a selector server without having to stop or restart any component. 0079, the idea that

a selector server can get its data from another selector leads to number of interesting and important consequences. This idea is known as daisy chaining. 0080, selectors to refine selections without having to requery the repository. Accordingly, modifying (new selectors can be defined and allocated/ selectors to refine selection) one of the first and second processing engines (selection servers) during the determining step (daisy chaining), wherein the determining of the solution is not interrupted by the modification (without having to stop or restart any component) is suggested.]

Devine and Kendall are both related to publish and subscribing systems. Hence are within a the same field of endeavor. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply Kendall's disclosure of subscribing to one processing engine to another to produce a result as shown above to Devine's system in order to provide fine selections without having to requery repositories [0080]. Thereby improving the cost of data retrieval.

**Claim 7:**

Devine discloses "deploying a new processing engine, wherein the determining of the solution is not interrupted by the modification" [0057, deploying a back up workstation (i.e. new processing engine) when failure or loss of power occurs to the publisher.].

**Claim 9:**

Devine discloses the following claimed limitations:

“a memory having a program that provides a plurality of in-memory processing engines” [0055, connected devices provide data processing. That is, plurality of processing engines.] “, each processing engine subscribing to at least one of a plurality of datatypes and capable of publishing at least one of the datatypes” [Devine, 0055, Connected devices are able to subscribe and publish information.] “, at least one of the processing engines subscribing to at least one of the datatypes published by another of the processing engines” [0055, connected devices may act as clients capable of receiving and optionally modifying reports that they receive from publishers. That is, the connected device can receive as well as respond to (i.e. by modifying) the subscribed datatype received from publisher.] “, the processing engines initiating processing responsive to receipt of a subscribed to datatype,” [0055, connected devices may act as clients capable of receiving and optionally modifying reports that they receive from publishers. That is, the connected device can receive as well as respond to (i.e. by modifying) the subscribed datatype received from publisher.]

“a processing unit that runs the program” [Abstract, program execution].

However, Devine does not explicitly disclose

“determines a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and

a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype.”

On the other hand, Kendall discloses,

“determines a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and” [abstract, a subscribing selector server receives data published by the data repository (e.g. a first processing engine subscribing to and receiving a first data type), filters the published data in accordance with filtering criteria defined on the selector server (e.g. performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype)]

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype” [0083, a first trade repository data is fed to a first selector server 24, which in turn passes data to a daisy chained second selector server 25. This in turn communicates via a wide area network 26 with a third daisy chained selector server 27 (e.g. a second processing engine subscribing to and receiving the second datatype). 0005, selector servers can filter and combine data (e.g. performing a second processing on the processed data associated with the second data type to

determine the solution to the problem) to produce customized output (e.g. and publishing the solution as a third datatype)].

“modifies one of the first and second processing engines during the determining step, wherein the determining of the solution is not interrupted by the modification.” [0072, the allocation of selectors to servers is dynamic; this means that new selectors can be defined and allocated to a selector server without having to stop or restart any component. 0079, the idea that a selector server can get its data from another selector leads to number of interesting and important consequences. This idea is known as daisy chaining. 0080, selectors to refine selections without having to requery the repository. Accordingly, modifies (new selectors can be defined and allocated/ selectors to refine selection) one of the first and second processing engines (selection servers) during the determining step (daisy chaining), wherein the determining of the solution is not interrupted by the modification (without having to stop or restart any component) is suggested.]

Devine and Kendall are both related to publish and subscribing systems. Hence are within a the same field of endeavor. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply Kendall's disclosure of subscribing to one processing engine to another to produce a result as shown above to Devine's system in order to provide fine selections without having to requery repositories [0080]. Thereby improving the cost of data retrieval.

**Claim 10:**

Devine discloses the following claimed limitations:

“means for providing a plurality of in-memory processing engines” [0055, connected devices provide data processing. That is, plurality of processing engines.] “, each processing engine subscribing to at least one of a plurality of datatypes and capable of publishing at least one of the datatypes” [Devine, 0055, Connected devices are able to subscribe and publish information.] “, at least one of the processing engines subscribing to at least one of the datatypes published by another of the processing engines, the processing engines initiating processing responsive to receipt of a subscribed to datatype” [0055, connected devices may act as clients capable of receiving and optionally modifying reports that they receive from publishers. That is, the connected device can receive as well as respond to (i.e. by modifying) the subscribed datatype received from publisher.].

However, Devine does not explicitly disclose,

“means for determining a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and

a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype”.

On the other hand, Kendall discloses,

“means for determining a solution to a problem by

a first processing engine subscribing to and receiving a first datatype, performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype, and” [abstract, a subscribing selector server receives data published by the data repository (e.g. a first processing engine subscribing to and receiving a first data type), filters the published data in accordance with filtering criteria defined on the selector server (e.g. performing a first processing on a data associated with the first datatype, and publishing a first processing result as a second datatype)]

“a second processing engine subscribing to and receiving the second datatype, performing a second processing on the processed data associated with the second datatype to determine the solution to the problem, and publishing the solution as a third datatype” [0083, a first trade repository data is fed to a first selector server 24, which in turn passes data to a daisy chained second selector server 25. This in turn communicates via a wide area network 26 with a third daisy chained selector server 27 (e.g. a second processing engine subscribing to and receiving the second datatype). 0005, selector servers can filter and combine data (e.g. performing a second processing on the processed data associated with the second data type to determine the solution to the problem) to produce customized output (e.g. and publishing the solution as a third datatype)].

“means for modifying one of the first and second processing engines during the determining step, wherein the determining of the solution is not interrupted by the modification.” [0072, the allocation of selectors to servers is dynamic; this means that new selectors can be defined and allocated to a selector server without having to stop or restart any component. 0079,

the idea that a selector server can get its data from another selector leads to number of interesting and important consequences. This idea is known as daisy chaining. 0080, selectors to refine selections without having to requery the repository. Accordingly, means for modifying (new selectors can be defined and allocated/ selectors to refine selection) one of the first and second processing engines (selection servers) during the determining step (daisy chaining), wherein the determining of the solution is not interrupted by the modification (without having to stop or restart any component) is suggested.]

Devine and Kendall are both related to publish and subscribing systems. Hence are within a the same field of endeavor. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply Kendall's disclosure of subscribing to one processing engine to another to produce a result as shown above to Devine's system in order to provide fine selections without having to requery repositories [0080]. Thereby improving the cost of data retrieval.

#### ***Response to Arguments***

9. Applicant's arguments filed 1, 3, 5, 7, and 9-10 have been fully considered but they are not persuasive.

A. Applicant's assert that the claimed invention uses horizontally-scaled in-memory processing engines to solve problems.

In response, the claimed invention does not claim any such horizontally-scaled in-memory processing engines. Second, applicant does not provide any clear and concise definition



of what is meant by “horizontally-scaled” would mean in the claimed language. Accordingly, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., horizontally-scaled) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

B. Applicant's assert that Kendall does not disclose modifying any of its processing engines during a determining step without interrupting the determination of the solution by the modification.

In response, the examiner respectfully disagrees. Please see above rejection.

***Conclusion***

10. The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

Application/Control Number:  
10/690,870  
Art Unit: 2167


Page 18

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Pham  
Art Unit 2167  
Examiner

John Cottingham  
Art Unit 2167  
Supervisor

  
JOHN COTTINGHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100